

**Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1-153. (Canceled)

154. (Currently Amended) A method of affecting biological processes in vivo comprising:

a) selecting an in vivo biological tissue comprising functional groups  $X_1$  wherein the biological tissue has undergone surgery to excise a tumor;

b) applying a composition to said biological tissue, the composition consisting essentially of a synthetic polymer and a drug, the synthetic polymer comprising poly(alkylene oxide) functionalized with multiple activated groups Y, where Y is reactive with X, wherein the synthetic polymer is not in admixture with any other synthetic polymer that is reactive with the synthetic polymer ~~prior to applying the composition to the tissue or following applying the composition to the biological tissue;~~ and

c) allowing the synthetic polymer to form covalent bonds with the biological tissue under conditions where i) X reacts with Y and ii) biological processes in the vicinity of the biological tissue are affected by the drug.

155-162. (Canceled)

163. (Currently Amended) The method of claim ~~162-154~~ wherein the surgery is breast surgery.

164. (Currently Amended) The method of claim ~~162-154~~ wherein the surgery is breast tumor lumpectomy.

165. (Currently Amended) The method of claim ~~462-154~~ wherein the surgery is brain surgery.

166. (Currently Amended) The method of claim ~~462-154~~ wherein the surgery is hepatic resection surgery.

167. (Currently Amended) The method of claim ~~462-154~~ wherein the surgery is colon tumor resection surgery.

168. (Currently Amended) The method of claim ~~462-154~~ wherein the surgery is neurosurgical tumor resection.

169-240. (Canceled)

241. (Previously Presented) The method of claim 154 wherein the synthetic polymer has 2-12 activated groups.

242. (Previously Presented) The method of claim 154 wherein the activated group comprises an electrophilic site.

243. (Currently Amended) The method of claim 154 wherein the synthetic polymer comprises the formula (polymer backbone)-(Q-Y)<sub>n</sub> wherein Q is a linking group, ~~Y is an activated functional group,~~ and n is an integer of greater than 1, and wherein Q is selected from the group consisting of -G-(CH<sub>2</sub>)<sub>n</sub>- wherein G is O.

244. (Previously Presented) The method of claim 243 wherein the synthetic polymer comprises the formula (polymer backbone)-(D-Q-Y)<sub>n</sub> wherein D is a biodegradable group and is poly(alpha-hydroxy acid).

245. (Canceled)

246. (Currently Amended) The method of claim ~~245~~154 wherein the poly(alkylene oxide) comprises ethylene oxide residues.

247. (Previously Presented) The method of claim 154 wherein the drug is a cell cycle inhibitor.

248. (Previously Presented) The method of claim 247 wherein the cell cycle inhibitor is a taxane.

249. (Previously Presented) The method of claim 247 wherein the cell cycle inhibitor is paclitaxel.

250. (Previously Presented) The method of claim 154 wherein the multiple activated groups of the synthetic polymer are thiol-reactive groups.

251. (Currently Amended) The method of claim 250 wherein the thiol-reactive groups are N-hydroxysuccinimidyl ester or succinimidyl carbonate.

252. (Previously Presented) The method of claim 154 wherein the multiple activated groups of the synthetic polymer are amine-reactive groups.

253. (Currently Amended) The method of claim 252 wherein the amine-reactive groups are N-hydroxysuccinimidyl ester or succinimidyl carbonate.

254. (Previously Presented) The method of claim 154 further comprising, prior to applying the biological tissue, first combining the composition with a buffer having a pH of

less than 6 to form a homogeneous solution; followed by raising the pH of the homogeneous solution to a pH of more than about 7.8.

255. (Previously Presented) The method of claim 154 further comprising combining the composition with a buffer having a pH of less than 6 to form a homogeneous solution prior to applying the composition to the biological tissue; and raising the pH of the homogeneous solution to a pH of more than about 7.8 after applying the composition to the biological tissue.

256. (New) The method of claim 154 wherein the biological process in the vicinity of the biological tissue comprises local recurrence of tumor, which is inhibited by the drug.

257. (New) The method of claim 256 wherein the drug is an anti-microtubule agent.

258. (New) The method of claim 257 wherein the anti-microtubule agent is a taxane.

259. (New) The method of claim 257 wherein the anti-microtubule agent is paclitaxel.